

WHAT IS CLAIMED IS:

1. A method of providing a board packaging line program for a system comprising a board packaging line coordinating computer connected with the devices constituting a board packaging line through a network and an application server for storing an application program to be provided to the board packaging line coordinating computer, the board packaging line coordinating computer and the application server being connected to each other through an internet, the method comprising:

the step in which the board packaging line coordinating computer downloads the service contract information produced based on the contract with a customer and the application program stipulated in the contract information from the application server;

the step in which the board packaging line coordinating computer defines the board packaging line for the application program and the device configuration thereof based on the contract information and uploads the defined device configuration to the application server;

the step in which the application server retrieves the required device driver from a prepared group of device drivers, based on the device configuration uploaded from the board packaging line coordinating computer; and

the step in which the board packaging line computer downloads the retrieved device driver from the application server and setting the device driver in each device.

2. The method of providing a board packaging line program according to claim 1,

wherein the application program can be used for selected one or a combination of any ones of applications including the set-up management, the time-lapse variation management and the defect cause estimation.

3. The method of providing a board packaging line program according to claim 1,

wherein the service contract information is produced with each board packaging line as a basic unit, and contains the information for identifying the applicable board packing line coordinating computer, the information for identifying the board packaging line, the information for identifying the application program used for the line, the number of registrable devices and the number of modifiable devices.

4. The method of providing a board packaging line program according to claim 3,

wherein the board packaging line coordinating computer having the client identification information contained in the service contract information defines the

board packaging line covered by the application program and the devices constituting the particular board packaging line on the one hand and sets the input/output correspondence between the application program and the applicable devices, based on the line identification information, the program identification information and the number of registrable devices contained in the service contract information.

5. The method of providing a board packaging line program according to claim 4,

wherein in the case where the device configuration of the board packaging line changes after introducing a predetermined application program to the board packaging line and the scope of change in the device configuration is not more than the changeable number of devices contained in the original service contract information, then the board packaging line coordinating computer changes the device configuration used for the line without changing the terms and conditions of the contract and sets the device driver corresponding to the changed device configuration while at the same time newly setting the data input/output correspondence between the application program and the changed applicable device.

6. The method of providing a board packaging line program according to claim 5,

wherein in the case where a device driver corresponding to the changed device configuration cannot be set, the board packaging line coordinating computer uploads the changed device configuration to the application server which retrieves the required device driver based on the device configuration uploaded, and the board packaging line coordinating computer downloads the retrieved device driver from the application server and sets the retrieved device driver in each device anew.

7. The method of providing a board packaging line program according to claim 3,

wherein the service contract information further contains an effective period during which the application program is usable, and in the case where an application is to be executed by the board packaging line coordinating computer, the execution of the application program is prohibited during other than the effective period.

8. The method of providing a board packaging line program according to claim 7,

wherein the board packaging line coordinating computer collects and stores the actually used data for the application program including one or a plurality of items including the total execution time of the application program, the total standby time, the number

of times a specific algorithm is operated, the number of times the operation result is displayed, the number of boards processed and the number of specific boards extracted, and the application server performs a variety of specific charge in accordance with predetermined charge conditions based on the actually used data, individually or in combined form.

9. The method of providing a board packaging line program according to claim 3,

wherein the service contract information contains the cycle period for which the actually used data of the application program are to be transmitted and the service contract information is to be updated, and in the case where the actually used data of the application program is not transmitted or the service contract information is not updated by the board packaging line coordinating computer for longer than the period, the execution of the application program is prohibited.

10. The method of providing a board packaging line program according to any one of claims 1 to 9,

wherein the board packaging line coordinating computer conducts an internet communication with the application server through a communication client.

11. A system for providing a board packaging line program, comprising a board packaging line coordinating

computer connected with each device constituting a board packaging line by LAN and an application server for storing an application program to be provided to the board packaging line coordinating computer connected with the board packaging line coordinating computer through an internet, the board packaging line coordinating computer comprising:

means for downloading from an application server the service contract information prepared based on the contract signed with a customer and an application program stipulated in the contract information;

means for defining the board packaging line covered by the application program and the device configuration of the board packaging line based on the contract information and uploading the defined device configuration to the application server; and

means for downloading the retrieved device driver from the application server and setting the device driver in each device;

wherein the application server includes means for retrieving the required device driver from a group of device drivers prepared, based on the device configuration uploaded from the board packaging line coordinating computer.

12. A system for providing a board packaging line

program, comprising a board packaging line coordinating computer connected to each device constituting a board packaging line by LAN, a communication client computer capable of transmitting information through a removable medium to and from the board packaging coordinating computer, and an application server for storing an application program to be provided to the board packaging line coordinating computer, the application server and the communication client computer being connected to each other by an internet;

wherein the board packaging line coordinating computer includes:

means for downloading the service contract information prepared based on the contract signed with a customer and the application program stipulated in the contract information, from the application server through a communication client and a removable medium;

means for defining the board packaging line covered by the application program and the device configuration of the board packaging line based on the contract information and uploading the defined device configuration to the application server through a communication client and a removable medium to the application server; and

means for downloading the retrieved device driver

from the application server through the communication client and the removable medium and setting the retrieved device driver in each device;

wherein the application server includes means for retrieving the required device driver from a group of device drivers prepared, based on the device configuration uploaded from the board packaging line coordinating computer through the communication client and the removable medium.

13. A package defect source determining system for detecting a defect source of a board packaging line by transmission and receipt of data between each device constituting the board packaging line and a board packaging line coordinating computer through a network;

wherein each device includes a device for performing the mounting process, an inspection device for determining whether the result of the mounting process is conforming or non-conforming and a measuring device for measuring the information for determining a defect source;

wherein the measuring device is mounted removably on the board packaging line; and

wherein the package defect source determining means built in the board packaging line coordinating computer has the function of specifying a defect source based on

the information acquired at least from the measuring device.

14. The package defect source determining system according to claim 13,

wherein the board packaging line coordinating computer has the function of activating the package defect source determining means in response to a notification of a defect from each device constituting the board packaging line.

15. A package defect source determining method for a package defect source determining system for detecting a defect source of a board packaging line by transmission and receipt of data between each device constituting the board packaging line and a board packaging line coordinating computer through a network;

wherein the devices include at least a device for performing the mounting process, an inspection device for determining whether the result of the mounting process is conforming or non-conforming, and a measurement device removably mounted on the board packaging line for measuring the information for determining a defect source; and

wherein the board packaging line is operated, and during the operation of the board packaging line, the defect source determining unit is operated by the board

packaging line coordinating computer, so that a defect source is identified based on at least the information acquired from the measuring device.

16. The package defect source determining method according to claim 15,

wherein the defect source determining unit is activated upon receipt of a notification of the occurrence of a defect from the inspection device and thereby identifies the defect source.

17. The package defect source determining method according to claim 15 or 16,

wherein the board packaging line coordinating computer acquires at least the information from the measuring device and stores the information in the measurement data storage means during the operation of the board packaging line, and

wherein the defect source is identified utilizing the information stored in the measurement data storage means.